

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1- 10. (canceled).

11. (currently amended): An exposure apparatus for forming an image on a recording medium by scanning exposure, the apparatus comprising:

a light source for ejecting a light beam emitted in a broad area for at least a main-scanning direction;

a condensing optical system for condensing the light beam emitted from the light source on the recording medium; and

an array refracting element that includes at least two or more pairs of refracting members, wherein each of the at least two or more pairs of refracting members is one unit having a unit surface shape dividing one light beam into two light beams by ejecting one incident light beam toward different positions, the array refracting element~~which is being~~ disposed between the light source and the recording medium so that a direction, in which the at least two or more pairs of refracting members are arranged~~in at least two pair units~~ in an array shape, is substantially parallel to the broad area direction of the light beam emitted from the light source, ~~wherein the array refracting element includes a refracting member having a unit surface shape dividing one~~

~~light beam into two light beams by ejecting the one incident light beam toward different positions,~~

wherein the array refracting element is configured to arrange the at least two or more pairs of refracting members in at least two pair units in an array shape in a direction orthogonal to a light beam dividing direction.

12. (original): The exposure apparatus of claim 11, wherein the array refracting element is disposed at a position at which a far field pattern of the light beam emitted from the light source is formed.

13. (original): The exposure apparatus of claim 11 further comprising:
an inputting component for inputting resolution information showing resolution of an image formed on the recording medium by the scanning exposure; and
a moving component in which the array refracting element is removed from the optical axis of the light beam emitted from the light source when the resolution shown by the resolution information is a predetermined first resolution, and the array refracting element is moved so as to be placed on the optical axis when the resolution shown by the resolution information is a second resolution which is lower than the first resolution.

14. (currently amended): An exposure apparatus for forming an image on a recording medium by scanning exposure, the apparatus comprising:

a light source for ejecting a light beam emitted in a broad area for at least a main-scanning direction;

a condensing optical system for condensing the light beam emitted from the light source on the recording medium; and

an array diffracting element that includes at least two or more pairs of refracting members, wherein at least one of the refracting members in each of the at least two or more pairs of refracting members is formed as a diffracting member and each of the at least two or more pairs of refracting members is one unit having a unit surface shape dividing one light beam into two light beams, the array diffracting element ~~which is being~~ disposed between the light source and the recording medium so that a direction, in which the at least two or more pair of refracting members are arranged ~~in at least two pair units~~ in an array shape, is substantially parallel to the broad area direction of the light beam emitted from the light source, ~~wherein the array diffracting element includes two refracting members, at least one of which is formed as a diffracting member, having a unit surface shape for dividing the light beam into two light beams,~~

wherein the at least two or more refracting members are arranged in at least two pair units in an array shape in a direction orthogonal to a light beam dividing direction.

15. (original): The exposure apparatus of claim 14, wherein the array diffracting element is disposed at a position at which a far field pattern of the light beam emitted from the light source is formed.

16. (original): The exposure apparatus of claim 14 further comprising:
an inputting component for inputting resolution information showing resolution of an image formed on the recording medium by the scanning exposure; and
a moving component in which the array diffracting element is removed from the optical axis of the light beam emitted from the light source when the resolution shown by the resolution information is a predetermined first resolution, and the array diffracting element is moved so as to be placed on the optical axis when the resolution shown by the resolution information is a second resolution which is lower than the first resolution.

17. (canceled).

18. (previously presented): The exposure apparatus of claim 11, wherein the array refracting element comprises:
two refracting members in pair units that divide the same incident light beam being split in two directions.

19. (cancelled).

20. (previously presented): The exposure apparatus of claim 11, wherein when a resolution is 2·K0 (dpi),

$$W = \frac{(N-1) \times 2 \cdot \varepsilon}{2} + \varepsilon = N \cdot \varepsilon$$

and wherein when the resolution is K_0 (dpi),

$$W' = N \times 2 \cdot \epsilon;$$

where: ϵ is a scanning line pitch of each light beam in a sub-scanning direction;

N is the number of light sources;

W is a feed pitch in the sub-scanning direction for $2 \cdot K_0$; and

W' is the feed pitch in the sub-scanning direction for K_0 .

21. (cancelled).

22. (previously presented): The exposure apparatus of claim 18, wherein the array refracting element comprises:

two refracting members in pair units that form adjacent members, said adjacent members are placed side by side in the direction orthogonal to the light beam dividing direction.

23. (new): The exposure apparatus of claim 11, wherein dividing the incident light beam into two light beams requires a same recording information in the two divided light beams.

24. (new): The exposure apparatus of claim 11, wherein dividing the incident light beam into two light beams requires a same spectrum in the two divided light beams as the incident light beam.

25. (new): The exposure apparatus of claim 11, wherein the incident light beam is divided at only two different angles by the respective pairs of refracting members.

26. (new): The exposure apparatus of claim 11, wherein the incident light beam passes through one refracting member of the respective pairs of refracting members unchanged, and is refracted by another refracting member of the respective pairs of refracting members.

27. (new): The exposure apparatus of claim 11, wherein when the light beams divided by the respective pairs of refracting members are condensed, the resultant condensed beam is divided into two beams forming two condensing spots, even when plural pairs of the refracting members are arranged.